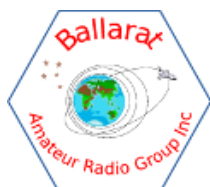


Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 4 2024



BARG Newsletter

Ballarat Amateur Radio Group Inc. #6953T

November 2023 Monthly Newsletter



Next Meeting General BARG inc
11:00am, Saturday 25th November 2023
At the Airport - All Welcome



Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

Contents

Contents.....	2
New Dates and Times of BARG General Meetings.....	3
Construction Sessions/Days	3
President's Report November 2023	3
Extended bandwidth on 80m on OCFdipole	5
VKFF Get Together – 2023.....	7
Don't Forget Spring 2023 VHF/UHF Field Days	9
The Next BARG General Meeting	11
Saturday November 25 th 2023	11
BARG Hamvention 2024.....	12
Morse Code by Google	13
Musings from the Doc, VK3CFH.....	14
Come Along to the BARG Coffee Mornings.....	15
Where Is This?.....	16
Magazine Reviews	17
QST November 2023 Review	17
Silicon Chip November 2023 Review	21
DIYODE November 2023 Review	22
Back Copies of BARG inc. Newsletters.....	23
23 pages !!.....	23

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.qrz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Colin Consiglio VK3NCC
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Lachlan Macdonald VK3ALM
Ordinary Member	Ian Fairweather VK3YFD		

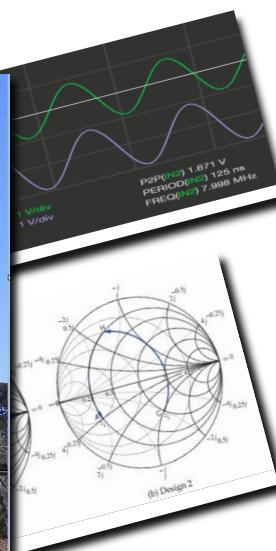
New Dates and Times of BARG General Meetings



The next meeting is
General Meeting. Saturday 25th of November 2023. 11:00am

Construction Sessions/Days

Saturday December 2nd at 1pm





President's Report November 2023



Most should now know of the results of the AGM last month and who is on the Committee now. What you may not already know is that the Committee Co-Opted Peter VK3APW to the position of Secretary at its November meeting on the 13th of November and Doug VK3DRE was also Co-Opted as an additional Committee member.

Hamvention planning is in full swing and further information will be posted shortly. But I will make mention of table bookings and want to be next to a certain trader, to do this for the upcoming Hamvention you must book within 48 hours of each other.

Christmas breakup BBQ is on the 9th of December. More details should be in this Newsletter.

Final General meeting for 2023 is on Saturday the 25th of November, this is to include grounds tidy up working bee from 9am breaking for Meeting and BBQ lunch at 11 am. There will also be some work on the antennas with the wiring of the VHF/UHF rotator for the remote base and the relocation of some antennas to accommodate for the End Fed antenna that was meant to go up some time ago.

As this is my last Presidents report until January have a Merry Christmas and Happy New Year.

73's Ben VK3NRD.

Note: Our summits have been removed; the club room do not look like it is on the Moon.

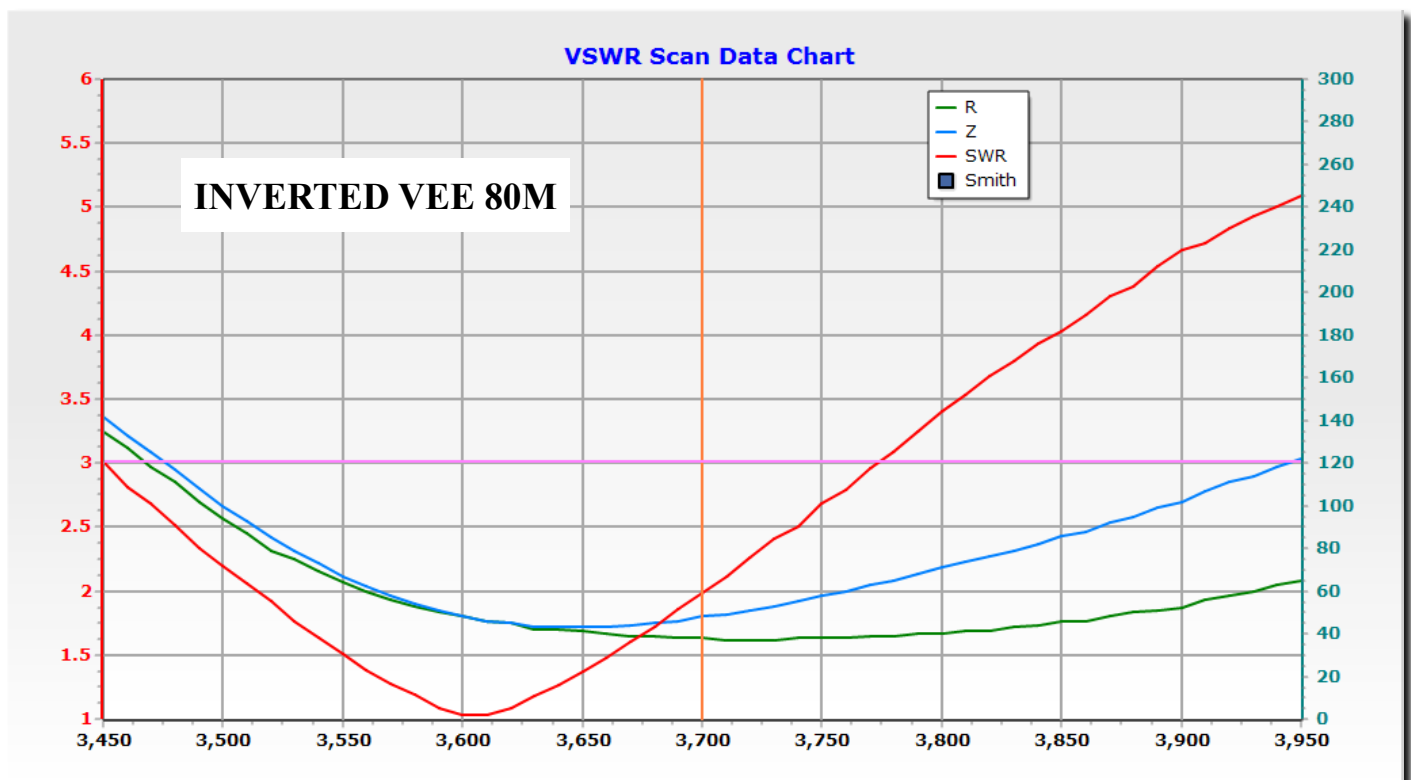
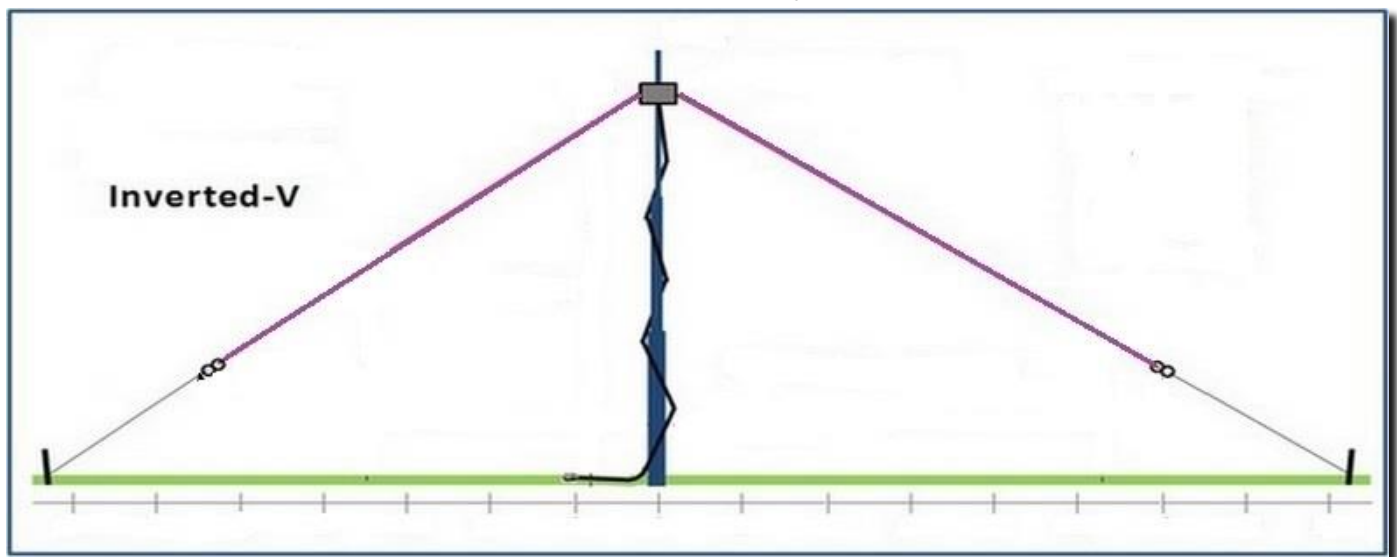


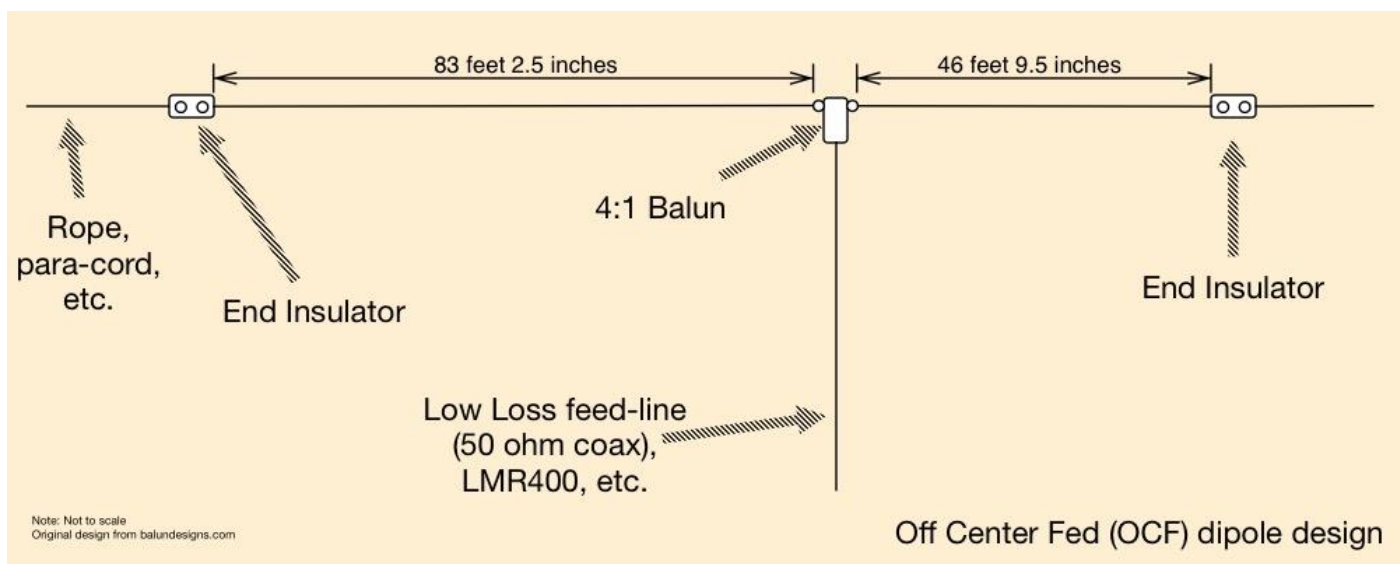
Extended bandwidth on 80m on OCFdipole

Contributor Lach, VK3ALM

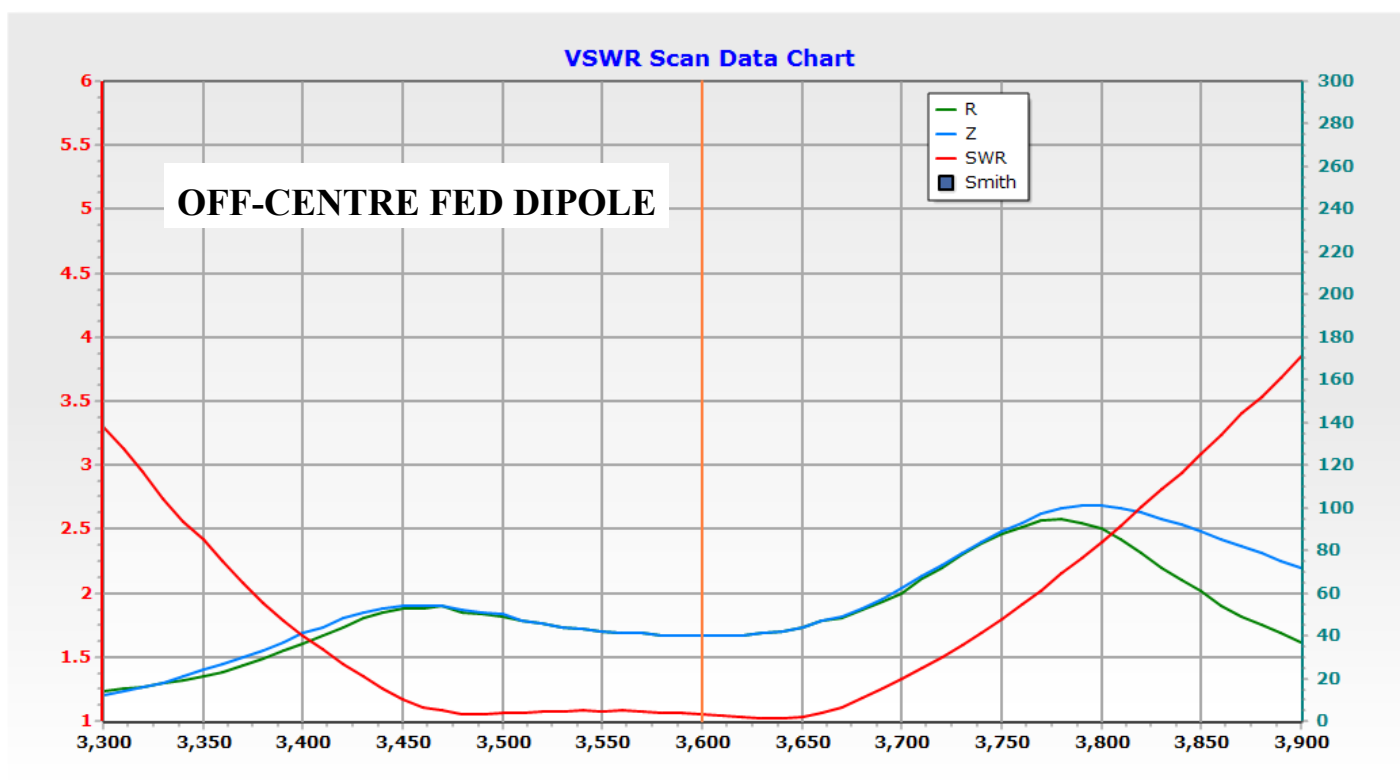
Here are the SWR plots of two of my 80m antennas.

The inverted vee shows the expected fairly sharp bandwidth on 80m.





The off-centre fed dipole has a larger bandwidth, covering almost the full 80m band.



My theory is the 4:1 air core balun stretches or smears the match, allowing for the extra bandwidth. You will also note the resonant section extends below 3.5MHz. This is the result of the copper wire stretching, lowering the resonance.

Check your antenna occasionally, as like this one it may need a slight trim. But sometimes an OFCD is a compromise depending on the bands you use. All measurements on the Sark100.

Cheers Lach VK3ALM

VKFF Get Together – 2023

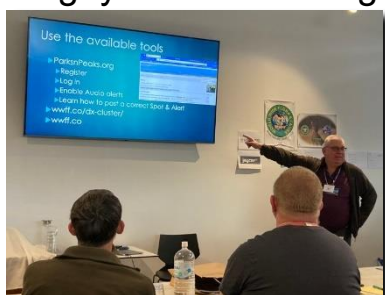
Contributor Mal, VK3OAK



Saturday the 28th of October saw a group of keen parks activators gather in Renmark, SA, for a VKFF Get Together. An opportunity for some keen parks activators and hunters to meet face to face. Most for the first time. Peter, VK3PWG commented to me at one of the dinning nights that he'd heard about it and thought it'd be an interesting event. When I shared that I was all booked in and he was welcome to tag along and the trip was planned.

We headed out on Thursday morning with a goal of activating parks on the way there and home again. We managed five over and five back again. With other activators also travelling to Renmark, there were more park to park contacts than you'd expect for mid-week activations.

The event had 27 attendees. We kicked off with a dinner on Friday night at the Renmark club. The Renmark club has a large dinning area that seats several hundred people. So, when we arrived, we had to ask the guy who's directing customers to free tables where our group was. He waved in the general direction, asking if we recognised any faces. Both Peter and I replied "no".



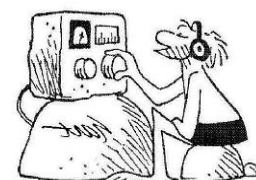
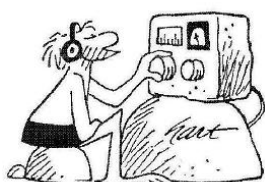
Saturday was the main event with presentations on a good range of topics including hearing from the developers of the popular parks logging applications, VK3ZPF for VK-Porta-Log and Sue, VK5AYL for the iOS 'Parks&Peaks' app.

There was an excellent presentation on snake safety and field treatment of snake bites which is going to make me think twice about walking through long grass for the next few summers.

The final presentation was from the mayor of Renmark explaining how the town had managed the flood event late last year. The level of technology used and machinery used to save the town from the worst impact. It simply would have been possible to do the same as recent as twenty years earlier.

With good weather there and back, the trip was worth the effort.

The next VKFF get together is being planned for Bendigo, in the last weekend of October 2024. In some respects, I'm disappointed it's not further away.





With the success of this event, I'm sure there'll be a lot more people at the next one.

73's, Mal VK3OAK

Don't Forget Spring 2023 VHF/UHF Field Days

0100 UTC Saturday 25 November through 0059 UTC Sunday 26 November (0400 / 0359 in VK6).



Church Notice Board

Pot-luck supper Sunday at 5:00 PM - prayer and medication to follow.

Ladies don't forget the rummage sale. It's a chance to get rid of those things not worth keeping around the house.
Bring your husbands.



2024 ANNUAL VKFF NATIONAL GET TOGETHER

FRIDAY 25TH, SATURDAY 26TH & SUNDAY 27TH OCTOBER 2024

AT BENDIGO, VICTORIA.

THE VENUE IS YET TO BE CONFIRMED.

THE EVENT WILL INCLUDE A FRIDAY EVENING DINNER. GUEST SPEAKERS & DISPLAYS ON VKFF/WWFF DURING THE DAY ON SATURDAY. ON SATURDAY EVENING THERE WILL BE A DINNER FUNCTION. A SUNDAY MORNING BREAKFAST WILL BE HELD. THIS WILL BE FOLLOWED BY NUMEROUS PARK ACTIVATIONS ON SUNDAY.

MORE INFORMATION INCLUDING THE VENUE AND REGISTRATION DETAILS WILL FOLLOW ON THE WWFF AUSTRALIA WEBSITE AT [.....](https://www.wwffaustralia.com/annual-vkff-national-get-together.html)

<https://www.wwffaustralia.com/annual-vkff-national-get-together.html>



The Next BARG General Meeting

Saturday November 25th 2023

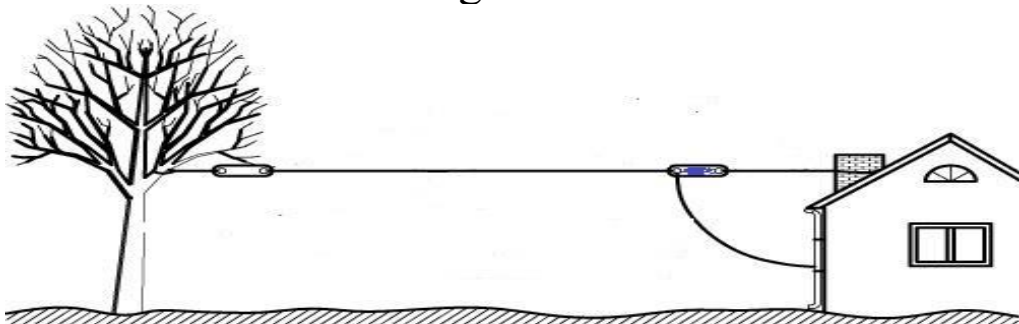
Will begin at 9:00am for those that want to help with a working bee to tidy up the clubroom area.

Some help with tools to do the job will help.

Contact Mal VK3OAK if you can help.



The mounds (summits)
have been removed, there is mowing and some possible antenna
erecting to do.



Contact Lach VK3ALM or Ian VK3YFD if you can assist.

The actual meeting will kick off at 11:00am with BBQ lunch
afterwards.



BARG Hamvention 2024



Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 4 2024

At the Ballarat Polo-Crosse Club's Facility,
Ballarat Airport

Display and Sales (setup from 8am on the day)

Trade Table \$20.00 includes one admission,
(Space for 70+ tables, this is the big one!)

General Admission \$ 7.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available on the premises

Enquiries and up to date details: BARG on the web www.barg.org.au



Bookings can be made at the BARG Web Site. <https://www.barg.org.au/>



[Home Page](#)

[Newsletters](#)

[Repeaters](#)

[Contact Us](#)

[What's On](#)

[*Members Area*](#)



Welcome to our home page

! News FLASH !

[Hamvention 2024 Information and booking form open](#)

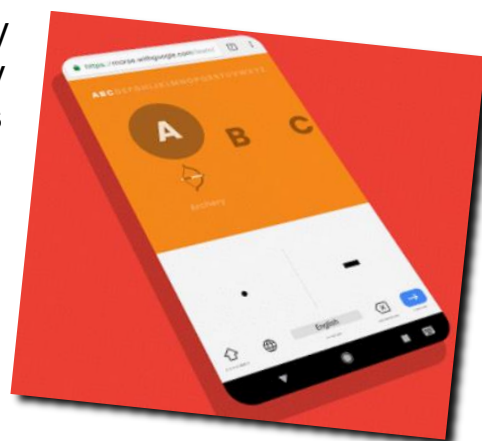
! News FLASH !

Morse Code by Google

Contributor Ben VK3NRD

Yes, you did read the title of this article correctly and this is really a Morse Code trainer developed by Google sort of. The article is a bit left of centre as it is not fully Amateur Radio related.

For some time, Google have had an experiments will Google section, I have poked around in the various experiments in the past. These are a collection of publicly submitted AI (Artificial Intelligence) experiments and other programming experiments using parts of the Google universe that have API's. Some of these may be added to the Google Universe over time.



Learn morse code is one of these experiments, it uses Gboard that now includes a morse code keyboard of sorts.

The morse keyboard is designed for use by those who could not speak and was the brainchild of US based Developer Tania Finlayson, who is wheelchair bound, unable to talk, can only use head movements to communicate and morse is the easy way for her to communicate as she can use 2 switch paddles either side of her head to enter morse code characters that Gboard converts to text then to a screen reader to do this. There is a link to a video about this at the end of this article.

On request the Gboard development team created a morse keyboard with dot on the left and dash on the right.

Once the keyboard was created a trainer was developed by Tania and Use All Five with friends at Google. The trainer is open source as well using Java and HTML. It is designed to work in the Google Chrome Browser on IOS or Android. It will not run on a desktop computer and only will play a demo.

The project itself is about 5 years old, but in my searches recently for a half decent trainer that did not require you to already have some knowledge of Morse Code have never shown this project until now. Strange and I did notice this project mentioned in passing by someone else in a Facebook Group related to Amateur Radio recently as well.

Although the program is developed for the disabled as an alternative way to communicate using a screen reader and Gboard's Morse Code Keyboard and a switcher dongle. It could be used for basic training in Morse Code for anyone wanting to just learn Morse Code before progressing to a more advanced program like More Mentor.

Having now only played with it for 5 minutes before bashing this article out I am picking up the following letters quickly A E M T S and I. I would not yet be able to do anything on air unless I was using a Lambic Paddle maybe, but I am able to learn the dots and dashes needed to form each letter and some basic words from these letters.

This was intended to be a short article as a filler for the BARG Newsletter, so to close I will just say have a look using all the links below and make your own choice if it is suitable for learning Morse Code for Amateur Radio and also it would be a pity if

the art of Morse Code or as some call it CW ceased to exist as it is still possibly the easiest form of Radio Communication.

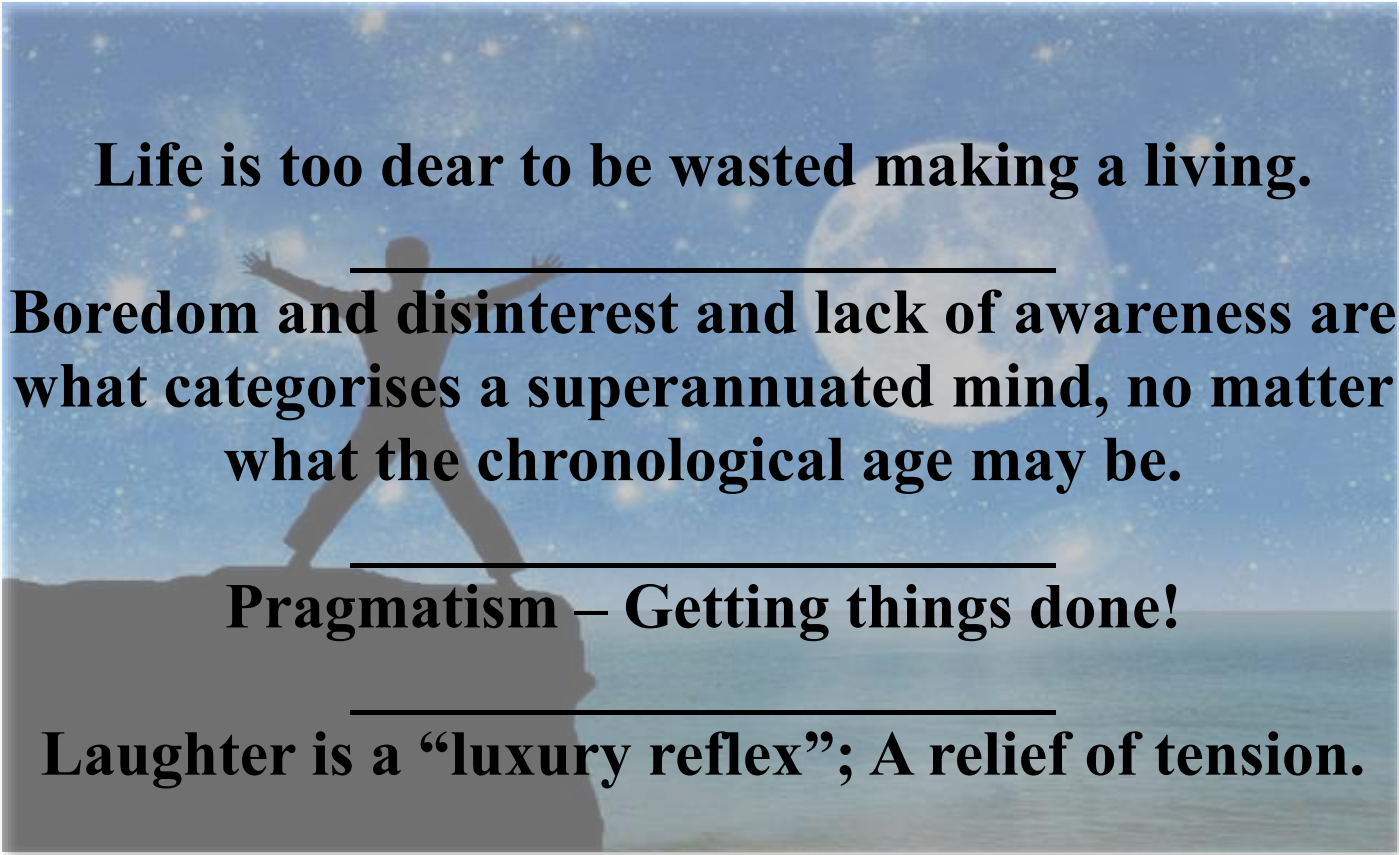
The Trainer can be found here <https://morse.withgoogle.com/learn/#>

More information, setup instructions and the video I mentioned earlier can be found here <https://experiments.withgoogle.com/collection/morse>

Git Hub repository for the code if you wish to install this on a webserver your self can be found here <https://github.com/googlecreativelab/morse-learn> note this is not an easy task to do as there are some dependencies you may need to build and compile from code as well.

Cheers Ben VK3NRD

Musings from the Doc, VK3CFH



Life is too dear to be wasted making a living.

Boredom and disinterest and lack of awareness are what categorises a superannuated mind, no matter what the chronological age may be.

Pragmatism – Getting things done!

Laughter is a “luxury reflex”; A relief of tension.

WHEN INSULTS HAD CLASS!

These glorious insults are from an era before the English language got boiled down to 4-letter words.

"Some cause happiness wherever they go; others, whenever they go."

- Oscar Wilde.

"I've had a perfectly wonderful evening. But I'm afraid this wasn't it."

- Groucho Marx.

Come Along to the BARG Coffee Mornings

Excellent turnout to the weekly club activity this month.



Every Thursday at 10 am
Food Seduction on Doveton
524 Doveton St Nth Soldiers Hill
(The old Gove Bike Shop)

**WOULD YOU LIKE TO CONTRIBUTE TO OUR
MONTHLY NEWSLETTER?**

**IF YOU THINK YOU CAN WRITE OR CONTRIBUTE SOME
PICTURES OF CLUB OR YOUR AMATEUR RADIO
ACTIVITIES**

FEEL FREE TO CONTACT ME.

73 TOM VK3DMK.

tomvk3dmk@gmail.com

Don't Forget the 100 years of Amateur Radio.

This BARG activity has been moderately successful.

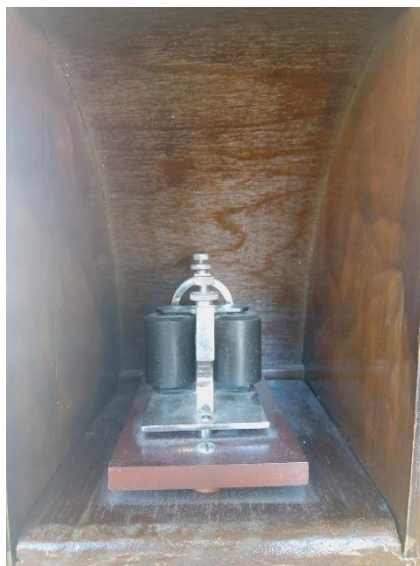
Just under half a century of awards have been issued so far.

2023 is the centenary year. The opportunity to claim an award will remain open until the end of December.

Check the BARG Webpage if you are interested.



Where Is This?



Answer elsewhere in the Newsletter.
Hint. Get your morse key out.





Are you interested in becoming an amateur radio operator?

If you are interested in WIA membership, the Amateur Radio Magazine and what is going on in the amateur radio world, then check out the site at;

<https://www.wia.org.au/>

Magazine Reviews

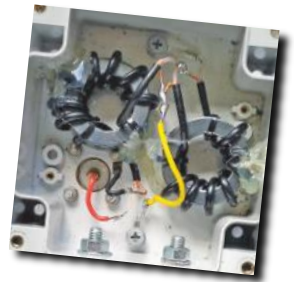
QST November 2023 Review

Review by Craig VK3KG

- P9 Second Century. Volunteers and getting out of there.
- P13 Member spotlight. Brian Daly WB7OML A/Vic of AT&T and committed to emergency service via EmComm with the challenges of Sep 11, 2001, his focus in cellular systems
- P24 Correspondence. Members write in BUT topics vary. One letter does stand out as it's very relevant to all amateurs, however more so to those getting on in age and having large amounts of amateur gear in possession. Have we thought about the value of all that equipment laying there and not really being used. Why not sell it now and you get to use the money rather than leaving it to an executive person to dispose of and they may not appreciate the value of it all.
- P30 A Simple, Portable Satellite Tracker. Using only a photographer's tripod with a handheld dual cross Yagi antenna the author has modified the mounting and added simple Az-EI motors, uses SatPC32 software to control a UNO Arduino board. See www.arrl.org/qst-in-depth. For more. See further development at <https://create.ardunio.cc> by Viorel YO3RAK.



P34 Build the LPI Antenna for 15-12-10M using a fiberglass fishing pole to start with the wire is bent [inverted over 18.5 feet] and feeds the input Z with a hand wound unun 4:1 [200:50] wound on two ferrite cores of no43 material with #12AWG wire. Tests show SWR within 2:1 over the spectrum from 21 to 30MHz and dips to 1.25 about 25MHz.



P37 REVIEW. CQV-SWR120SWR Power Meter. Suitable for 160 thru to 6M and measures up to 120W or using SSB to 200W. Using an internal battery (3.7V/1000mAh) it has a USB-C connector on the rear instead of taking power from the transceiver.



Suitable for field use as well as the shack, it weighs just 6.7oz and is 89x63x38mm. A comprehensive review by VE3IPS lists his findings in three and a half pages with a cost of between USD49 to 70 from assorted online sellers. As it has unbranded design details (made by Zehua BG5CQV) it has verbal language selection of English or Chinese in its internal programming and selected by one of the front panel switches during set up. Tested in ARRL labs by George W1GKS it seems to be a good buy for portable or shack use (provided you don't use a kilowatt.) It has an audible alarm should the SWR change significantly after setup.

P40 REVIEW. Oscilloscopes. The Rigol DS1202Z-E and the Siglent Technologies SDS1104X-E models. The 1202Z-E is a two channel 200Mhz digital CRO, {USD\$339} <https://rigolna.com> while the 1104X-E is only 100MHz digital BUT is a four channel device. This point is highlighted by the reviewer too. www.siglentamerica.com allows access to the six PDF document files needed for this unit. With better commercial use performance and certification, and four channels but lower frequency it fares for US\$499. www.siglentna.com



P47 REVIEW. Cushcraft ASQ-6 The 6 Meter Squalo Antenna. Supplied as a knock down DIY Is an omnidirectional square Halo antenna with a ferrite balun feed and rated at 200W PEP.

Using a fibre glass boom all the element parts are aluminum with S/S miniature hose clamps for the sliding "trombone" side pieces. The supplied data claims a spacing width of 32" or 813mm for 50.125 MHz resonance but experiment showed he wanted 729mm center to center spacing. Once elevated in the air on a chimney the frequency center dropped 80kHz to 50.120MHz. For a DIY project copy a Gamma match could be used instead of the Balun feed. An earlier model Cushcraft did use the Gamma arm matching. This kit costs USD220 from MFJ Enterprise. www.mfjenterprises.com.



P50 Ask Dave. All about homebrewing antennas and transmitters. Antenna for 160M and lightning surges and ground connection. Can I use any wire for my dipole and what about spurious emissions on old valve based crystal transmitters from the 1950's vintage? Interesting thoughts about published designs and DIY against today's regulations. Wonder if I can drag the old marine spark transmitter from under the bench and warm it up.??



P52 Hints & Hacks. Build a Sky Tube antenna, make handy antenna tool for beam assemblies, Refurbish exterior cabling and Internet grounding matters.

P54 Tech Correspondence. Look at Single Point GROUND panel considerations.

P56 How to lead a group of Amateur volunteers. Interesting article if you have ever had to organize or lead a group of people in activity and then to recap the good and bad things that occurred. Very encouraging for all to try at some time because there are different ways of leadership. Some work in some groups but will fail totally in others. Although written with the US slant worthy to follow thru and have a look. Volunteers are good for everything.



P58. Reality for Amateur radio.? Radio interface for the Metaverse. <http://neos.com> and <https://n1ara.org> to see "what's it all about" mixing in the Metaverse. https://store.steampowered.com/app/740250/Neos_VR Well after following these links I think the graphics are great but where is the amateur radio part now.?

P61 Build a portable 100Ah Lithium iron phosphate (LiFePO4) Battery pack as a club project.

The cost was USD\$700 for each battery BUT a very reliable power source resulted instead of a Lead acid design one. This cost includes the container, Battery Management system device and the individual cells. www.arrl.org/qst Containers available here are ex-military ammunition boxes. (plastic)

P65 Contest Calendar Nov 2023 to Dec 2024. Go work them all.!

P66 Getting the most out of your HF Contest operations.

P69 FIVE questions to ask yourself Before you go set up your own Remote.

1. What Internet B/W do I need. See www.waveform.com/tools/bufferbloat

2. Do I need a PC at the remote end.?

www.realvnc.com/en

3. Devices needed for remoting a shack. See Digital-loggers.com for web interfaces.

www.kmtronic.com www.ea4tx.com/en interfaces existing equipment or others such as www.greenheronengineering.com or

www.hamation.com will be complete control systems.

4. What are the options for Lightning protection. <https://paradanradio.com> can drop antenna and power connects when struck.



5. How to control all devices remotely. <https://groups.io/g/nodered-hamradio>
Good luck.

P71 Expanding your Contest ops to the 10Meter band. As the 25th solar cycle is increasing this band will become active again.

P74 Youth in Contesting.

P77 Happenings. Hurricane Idalia (August 2023)

P80 Public Service. EmComm gaps during a crisis: One solution. Using dedicated comms system trailers.

P86 Clubs. Building blocks of successful Contest Club.

P88 Life at Terminal Velocity... Operating the radio during a parachute drop. (Parachute mobile). POTA and Antenna builds.

P90 HOWS dx.? 4W8X – Timor-Leste 25-26 November 2023 expedition 160-6M and loaded with 6-144-432-1296 EME Look up and work www.timor-leste-dx.de/index.php Their grid locator will be at PI21QK. Enquiries to www.timor-leste-dx.de/about/contact.php

P92 Above 50MHz. August 2023 heat wave Tropo opening down East coast of US on 2 August on 2M. Although Digital contacts seem to be on the rise here many of these were realistic voice communications talking to people and not an AI one.

P99 Look at contents of QST Dec 1973.

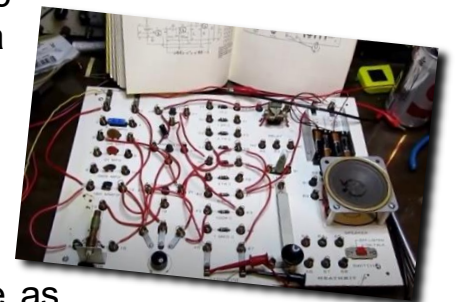
P102 Classic radio. HealthKit's Junior Electronic Workshop 19 Experimenters kit. From late 1960's a "breadboard" trainer provided youngsters a learning package using spring clips for wires and component leads to wire up simple circuits (19 in all) to study effects of each component. Other companies produced similar training kits/aids, but HealthKit was probably most successful over time as they expanded into test equipment as well.

P104 Index from 100, 50 and 25 years ago.

P126 Features the list of all advertisers in this month's copy of QST.

Happy reading

73 Craig. VK3KG

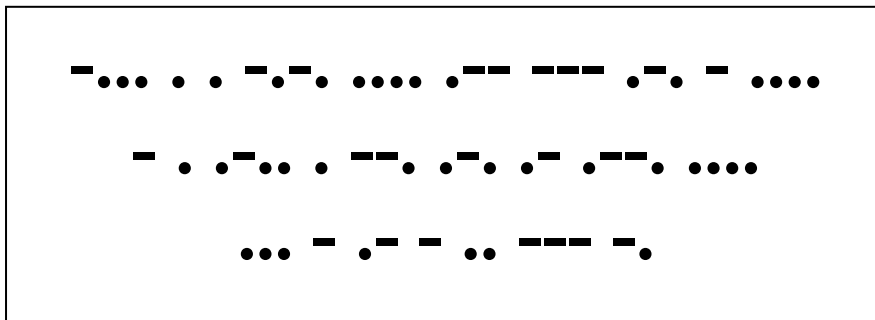
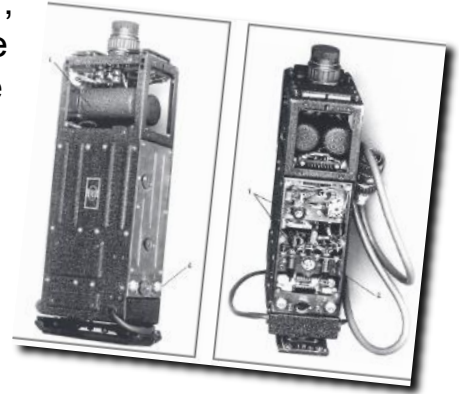


Silicon Chip November 2023 Review

- P12 The History of ELECTRONICS Part 2, Inventors, and their Inventions. An eyeopener onto the world of electronics/electricity and the many inventors that helped to form our understanding of the technology. Shows the inventions and their inventors of the 1800 1900 and into the 2000's. Hall Effect, Galvanometer, 3phase Generator, the first vacuum tubes, wire recorder, television, and the computer.
- P36 PICO Audio Analyser A hand sized Raspberry Pi Pico controlled test box. Provides audio signals and does THD analysis with USB power or on-board Li-Ion battery. The display shows your audio signal characteristics and a simple scope display of your waveform.
- P46 16-bit Precision 4-Input ADC. A comprehensive look at the ADS1115 ADC with I2C serial interface. How to connect and communicate between a controller and module with links to libraries to help with programming.
- P50 John Clarke's K-Type Thermocouple, Thermostat. Using a PIC and 16x2 LCD display with relay output for either heating or cooling applications. K-Type thermocouples can measure from -270°C to $+1800^{\circ}\text{C}$, includes cold junction correction. Using a MAX31855K interfacing IC to output suitable signals to a PIC16F1459. Designed to be powered by 12V dc @ 100mA, with instructions on fitting an output relay for mains powered devices.
- P62 Microchip PICkit 5. A review of Microchips latest programmer and in-circuit debugger. With Bluetooth connectivity and USB, working with the MPLAB IDE. A look under the bonnet and ins and outs of using it to its fullest capacity.
- P68 Modem/Router Watchdog. Keeping the Internet up. This is a device to reboot your hub should it sense that the device has stopped communicating. The IT solution of "Turn it OFF, Then ON" comes into play here. Usually, a cold restart fixes a lot of Internet communication misbehaviours. Uses a Raspberry Pi Pico W controller that periodically makes a WiFi connection with your Modem/Router, if after a number of tries, it fails then the power to the Modem/Router is disconnected for a short period to instigate a reset on the re-application of supply.
- P74 1kW + Class-D Mono Amplifier. Uses International Rectifier IRS2092S Class-D controller and IRFB4227 Mosfets. The actual PCB looks small compared to the rest of the hardware involved, including six, 24V high current SMPS. This final part shows the construction of the case and major components and simple testing procedure.



- P82 Serviceman's Log. A Weed Wacker and its batteries, IP Security Camera, a story from the good old days of analog TV and synchronising studio feeds, a naval fault and repair story, and fixing a weight scale.
- P94 Circuit Notebook. WiFi water tank level gauge, Magnetic levitation demonstration, Discrete microamp LED flasher.
- P98 Recreating the Sputnik-1 D-200 Radio Transmitter, Part 1. An intriguing insight into the design of the first transmitter in space. This part describes the actual hardware and design techniques that made this device work after being launched into space. Images of some of the historical experimental results recorded during the design phase and actual hardware items.

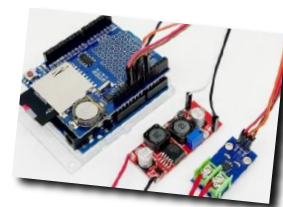


DIYODE November 2023 Review

- P8 New and Review. Arduino UNO REV4 MINIMA Development Board, Auto Ranging DMM, MAGLEV VAPO-Bearing Fans , Nylon Drag Chain.
- P12 Magic Mirror, Raspberry Pi-based Personal Assistant convert your hallway or bathroom mirror into your smart personal assistant. Using some open-source code and some Raspberry Pi hardware you have an interactive mirror.
- P19 Walking Black Hole. A costume for Book Week, a dad's solution to his son's request for a book week project. With power supply and battery management included into a very innovative prop.
- P32 12 Projects of Christmas Twelve small and visually engaging projects you can do with the kids over the coming Christmas period. Part 1. A teaching and building experience. LED Chaser, LED Scanner, Pulsar, RGB LED Controller, Timer Light, LED Stacker. Very clear and understandable diagrams and how they work texts.



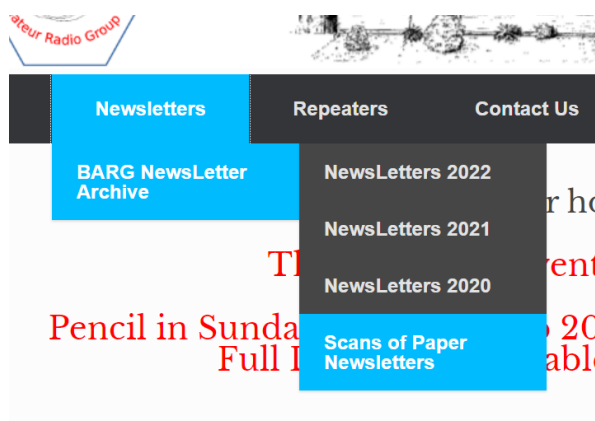
- P65 Arduino Data Logger using ChatGPT. How to design a data logger and see how effective ChatGPT is to design the code. Uses an Arduino Uno and DS Card shield to simplify the construction.
- P76 Flea Scope Low-Cost PIC-Based Oscilloscope. Flea scope is a very low-cost, easy-to-use 18 million sample per-second (Mps) USB oscilloscope and mixed-signal logic analyser with a built-in waveform generator.
- P96 Workbench Wonders. A look at one of DIYODE's readers/contributors home workbench.



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<https://www.barg.org.au/>

Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.
 Great job....



23 pages !!

Why? Because we are getting a great response from members and non-members, not just responding to requests but volunteering subject matter to include.

If you have an idea or making something, heading into the wilds of this wide brown land with Amateur Radio on board, doing a one day DXpedition, anything Amateur Radio themed, feel free to submit your articles and or pictures.

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